

100 Ways of Using Data to Make Lives Better

A series from The Farr Institute of Health Informatics Research showcasing the UK's most significant examples of using data in research

How Data Can Help Find New Ways to Help People in Psychiatric Emergencies

Researchers from Scottish universities and NHS Scotland used linked data to find out what happened to psychiatric patients admitted to emergency departments after they were discharged



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*Public Health
Case Study 50*

The Challenge

Every year the Scottish Ambulance Service (SAS) receives thousands of calls relating to self-harm or a psychiatric emergency. Most of these patients are taken to emergency departments (EDs) at hospitals.

Surprisingly, until now no research had been done on what happened to patients after their ED attendance. In order to provide epidemiological data, researchers from several Scottish universities and NHS Scotland came together to conduct a study.

The Research

The researchers used linked anonymised data that provided them with information on the Ambulance Service, ED attendance, acute and mental health hospital episodes as well as Registrar General Scotland (RGS) recorded deaths. SAS attendances for 'psychiatric emergencies' or 'self-harm' were extracted for 2011 and 2012. People were followed up from their first contact with the SAS in 2011 for one year.

The Results

In 2011, around nine thousand calls (made by 6,802 people) were attended by the SAS.

The most common four care pathways were:

1. transport to and discharge from ED (51%),
2. transport to ED and inpatient acute admission (14%),
3. attendance with no transfer, i.e. left primarily at home (11%),
4. transport via ED or directly to inpatient mental health admission (9%).

Within 12 months of their first recorded call, one in 25 people had died

(279), including 97 people recorded as suicide (35%). Remaining deaths were 'accidents', 'mental and behavioural disorders' and 'other' (long-term conditions with associated psychological distress).

Of the 279 people who died within one year of being seen in 2011, most were still alive after one day (240), with 1 in 4 (59) confirmed deaths by suicide.

In 2011 in Scotland there were 772 people recorded by the RGS as dying by suicide; this implies the SAS were in contact with about 8% (59/772) of people whilst still alive.

The Impact

There is a potential important benefit from implementing new suicide prevention interventions, and building resilience in people who habitually self-harm and call SAS, and are coded by paramedics as 'psychiatric emergency' or 'self-harm'.

Only very recently has ambulance service become routinely linked to other datasets, including mortality outcomes. This study highlights the enormous potential of linked data and provides completely new insights into the behaviour of people who self-harm and are suicidal. Opportunities now exist to develop new programmes of work targeting specific cohorts.

For more information about this research visit: <http://www.primecentre.wales/development-of-an-improved-care-pathway.php>

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